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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,859	10/31/2003	Liang Fang	NOR-1148	9345
37172 7590 11/09/2007 WOOD, HERRON & EVANS, LLP (NORDSON) 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			EXAMINER TALBOT, BRIAN K	
			ART UNIT 1792	PAPER NUMBER
			NOTIFICATION DATE 11/09/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/698,859

Applicant(s)

FANG ET AL.

Examiner

Brian K. Talbot

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/07 has been entered.
2. The amendment filed 8/28/07 has been considered and entered. Claims 1-11 remain in the application.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. In light of the amendment filed 8/28/07, the 35 USC 102 rejection has been withdrawn. However, the following 35 USC 103 rejection has been necessitated by the amendment.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference

claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12, 14-17 and 19-20 of copending Application No. 10/699,627. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed toward dispensing coating material with a noncontact dispenser having a valve seat, a jetting valve, a closure element, breaking the flow of coating material and applying droplets. The instant claims recite a conformal coating and the '627 application recites a viscous material.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (5,747,102) or Ciardella et al. (5,505,777) in combination with Hynes et al. (6,447,847) further in combination with Messerly et al. (6,253,957).

Smith et al. (5,747,102) teaches a method and apparatus for dispensing small amounts of liquid material. A valve is opened to dispense a stream of material through an orifice of a nozzle. The stream of material is broken into droplets by rapidly closing the valve. A uniform film can be formed from the droplets (abstract, col. 6, lines 20-50 and col. 11, line 45 – col. 12, line 8). The dispensing head can be manipulated in an X,Y and Z direction (col. 15, lines 4-45).

Ciardella et al. (5,505,777) teaches a computer controlled viscous fluid dispensing system. A dot generator is supported for motion in an X,Y and Z axes generates a jet of viscous material on the circuit board (abstract). The solenoid produces a rapid volume displacement which causes the jet of adhesive to be rapidly ejected from the nozzle. The jet breaks away as a

result of its own forward momentum and forms into a dot on the upper surface of the circuit board (col. 4, lines 1-7). The viscous material dispensed can include an encapsulant (i.e. a conformal coating) (col. 9, lines 60-65).

Smith et al. (5,747,102) or Ciardella et al. (5,505,777) fail to teach specifically recite that the viscous material can be a conformal coating.

Hynes et al. (6,447,847) teaches a conformal coating system wherein the dispensing mechanism is moveable in the X,Y and Z directions as well as rotation about the Z axis (abstract).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Smith et al. (5,747,102) or Ciardella et al. (5,505,777) dispensing system to dispense a conformal coating of Hynes et al. (6,447,847) with the expectation of achieving a more precise deposition of the conformal coating as well as success with similar viscous materials.

Smith et al. (5,747,102) or Ciardella et al. (5,505,777) in combination with Hynes et al. (6,447,847) fail to teach a valve closure element and a valve seat.

Messerly et al. (6,253,957) teach a suitable apparatus for forming droplets that comprises a valve eat and a valve closure element ; the valve member will compress the valve seat material and block the outlet bore as a minute droplet is dispensed (col. 4, line 26-29)

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Smith et al. (5,747,102) or Ciardella et al. (5,505,777) in combination with Hynes et al. (6,447,847) dispenser with the valve as evidenced by Messerly et al. (6,253,957) to apply the droplets in of applicant because Messerly et al. (6,253,957) with the expectation of achieving similar success, i.e. both apparatus are suitable for droplet application.

Response to Amendment

8. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that the prior art fails to teach a valve closure element and a valve seat. Messerly et al. (6,253,957) teaches this as detailed above.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BKT 11/2/07

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT